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EDUCATION:

2004	Licensee in Biology, University of Zulia, Maracaibo, Venezuela (BSc equivalent plus thesis/dissertation)
2010	Doctor of Philosophy in Earth & Atmospheric Sciences. Department of Earth & Atmospheric Sciences, University of Alberta, Canada.
2013-2014	Postdoctoral researcher, Center of Earth Observation Sciences, University of Alberta, Edmonton, Canada.

PROFESSIONAL EXPERIENCE:

2004-2005	GIS/Remote Sensing Analyst, Environmental NGO 'Provita', Caracas Venezuela.
2005-2010	Graduate Research Assistant. Center of Earth Observation Sciences, University of Alberta, Edmonton, Canada. Research: Remote sensing of tropical forests.
2010-2013	Associate Researcher, Laboratory of Arid and Semi-Arid Zones, Center for Botanical and Agroforestry Studies, Venezuelan Institute of Scientific Research, Maracaibo, Venezuela.
2014- 2020	Assistant Professor, Department of Natural Resources Management, Texas Tech University.
2020- Present	Associate Professor, Department of Natural Resources Management, Texas Tech University.

SELECTED RELEVANT PUBLICATIONS:

1. Fajardo, L., V. González, J. M. Nassar, P. Lacabana, C. A. **Portillo-Quintero**, F. Carrasquel & J. P. Rodríguez (2005) Tropical Dry Forests of Venezuela: characterization and current conservation status. Biotropica 37:531-546.
2. Wright, S.J., Sanchez-Azofeifa, G.A., **Portillo-Quintero, C**., Davies, D. (2007) Poverty and corruption compromise tropical forest reserves. Ecological Applications, 17(5), 2007,pp.1259-1266.
3. J. P. Rodríguez, J. M. Nassar, K. M. Rodríguez-Clark, I. Zager, C. **Portillo-Quintero,** F. Carrasquel, and S. Zambrano.(2008) The human dimensions of Venezuelan tropical dry forests. Environmental Conservation 35:311-318

4. **Portillo-Quintero C**. & Sanchez A. (2010) Extent and Conservation of tropical dry forests in the Americas. Biological Conservation 143:144-155.

5. **Portillo-Quintero, C**., Junior, L., Ines, G., Sanchez, A., Carlos, V. (2012). Forest cover and deforestation patterns in the Northern Andes (Lake Maracaibo Basin): a synoptic assessment using MODIS and Landsat imagery. *Applied Geography, 35*, 152-163.

6. **Portillo-Quintero, C**., Sanchez, A., Espirito-Santo, M. (2013). Monitoring deforestation with MODIS Active Fires in Neotropical dry forests: an analysis of local scale assessments in Mexico, Brazil and Bolivia. *Journal of Arid Environments, 97*, 150-159.

7. **Portillo-Quintero, C**., Sanchez, A., Culvenor, D. (2014). Using VEGNET In-Situ Monitoring Lidar (IML) to capture dynamics of Plant Area Index, structure and phenology in Aspen Parkland Forests in Alberta, Canada. *Forests, 5*(5), 1053-1068.

8. **Portillo-Quintero, C**., Sanchez, A., Calvo-Alvarado, J., Quesada, M., Espirito-Santo, M. (2014). The Role of Tropical Dry Forests for biodiversity, water and carbon conservation in the neotropics: lessons learned.. *Regional Environmental Change*, 1-11.

9. Stan K, Sanchez-Azofeifa A, Espírito-Santo M, **Portillo-Quintero C** (2015) Simulating Deforestation in Minas Gerais, Brazil, under Changing Government Policies and Socioeconomic Conditions. PLoS ONE 10(9): e0137911. doi:10.1371/journal.pone.0137911

10. Humagain, K; **Portillo-Quintero, C.;** Cox, R. and Cain, J. (2017) Mapping tree density in forests of the Southwestern USA using Landsat 8 data. *Forests* 8(8), 287.

11. Humagain, K*; **Portillo-Quintero, C**.; Cox, R. and Cain, J. (2018). Estimating forest canopy cover dynamics in Valles Caldera National Preserve, New Mexico, using LiDAR and Landsat data. *Applied Geography* 99:120-132. (**Impact Factor: 4.02)**

12. Smith, V.*; **Portillo-Quintero, C**.; Sanchez, G.A.; Hernandez-Stefanoni, J.L. (2019). Assessing the accuracy of detected breaks in Landsat time series as predictors of small scale deforestation in tropical dry forests of Mexico and Costa Rica. *Remote Sensing of Environment*. 221:707-721. (**Impact Factor: 8.89)**

13. Jackson, M.*; **Portillo-Quintero, C**.; Cox, R.; Ritchie, G.; Humagain, K.; Subedi, M. (2020). Season, classifier, and spatial resolution impact Honey Mesquite and Yellow Bluestem detection using an Unmanned Aerial System. *Rangeland Ecology and Management* (Impact Factor: 1.94). https://doi.org/10.1016/j.rama.2020.06.010

14. Reyes-Palomeque, G*.; Dupuy, JM; **Portillo-Quintero, C**.; Andrade, JL; Tun-Dzul, F; HernandezStefanoni, JL. (2020). Mapping forest age as an indicator of vegetation structure and species composition in tropical dry forests. *Ecological Indicators,* 120: https://doi.org/10.1016/j.ecolind.2020.106955 (Impact Factor: 4.49).

15. Ordway, E. M., Elmore, A. J., Kolstoe, S., Quinn, J. E., Swanwick, R. et al (more than five). 2021. Leveraging the NEON Airborne Observation Platform for socio-environmental systems research. *Ecosphere* 12: (6):e03640. 10.1002/ecs2.3640

16. Hernández-Stefanoni, J.L.; Castillo-Santiago, M.Á.; Andres-Mauricio, J.; **Portillo-Quintero, C.A.;** Tun-Dzul, F.; Dupuy, J.M. Carbon Stocks, Species Diversity and Their Spatial Relationships in the Yucatán Peninsula, Mexico. *Remote Sens.* 2021, 13, 3179. https://doi.org/10.3390/rs13163179

17. **Portillo-Quintero, Carlos**, J.L. Hernandez-Stefanoni, and J.M. Dupuy. 2023. Forest Clearing Dynamics and Its Relation to Remotely Sensed Carbon Density and Plant Species Diversity in the Puuc Biocultural State Reserve, Mexico. *Remote Sensing* 15, no. 13: 3445. https://doi.org/10.3390/rs15133445

18. Reyes-Palomeque G, Dupuy JM, **Portillo-Quintero CA**, Andrade JL, Tun-Dzul FJ, Hernández-Stefanoni JL. 2023. Scale dependency of the effects of landscape structure and stand age on species richness and aboveground biomass of tropical dry forests. *iForest* 16: 234-242. - doi: 10.3832/ifor4239-016

19. Subedi, M; **Portillo-Quintero, C**; Kahl, S; McIntyre, N; Cox, R; Perry, G. 2023. Large-area land use/land cover classification of very high-resolution imagery: accounting for spatial bias in sample data. *Photogrammetric Engineering & Remote Sensing, Volume 89, Number 9, September 2023, pp. 547-560(14)*

REGULAR TEACHING ACTIVITIES SINCE 2014

Undergraduate and Graduate level (Spring, Summer, Fall)

NRM3300 “Geographic Information systems for Natural Resources Management”

NRM4315 “Spatial Analysis in Natural Resources Management”

NRM4408 “Aerial Photo Interpretation in Natural Resources Management”

NRM6305 “Geospatial Technologies in Natural Resources Management”

NRM6303 “Imagery Interpretation in Natural Resources Management”

SYNERGISTIC ACTIVITIES

1. 2022 Kavli Frontiers of Science Fellow. National Academy of Sciences. The fellowship consisted in presenting original research to ~30 USA-based scientists from diverse disciplines during the 2022 Frontier of Science Symposium, and the participation of fellows in engaged interdisciplinary networking activities and research collaboration discussions.
2. Member. IUCN Commission on Ecosystem Management (Thematic groups: Red List of

Ecosystems and Ecosystem governance). July 1, 2017- present. Participation in the evaluation of policy reports and participation in networking and collaboration groups.

3. Guest Editor. 'Remote Sensing' journal. Special Issues I and II: "Novel Approaches in Tropical Forests Mapping and Monitoring – Time for Operationalization". (November 2021 – present). Establish guidelines for the special issues and coordinate the review process for submitted research papers.
4. Lecturer and Team advisor in the Professional Development Seminar on Management Ecosystem Services from Tropical Forests under the Tropi-Dry Collaborative Research Network, a seminar for students from several Latin America countries to introduce them to Tropical Dry forest management techniques and concepts. Sponsored by the Inter-American Institute of Global Change Research.
5. 2023 Hispanic Serving Institute (HSI) Fellowship. HSI Fellows program; Office for Campus Access & Engagement, Texas Tech University. As a fellow, my role is to elaborate and implementate an HSI initiative project within the Department of Natural Resources Management with the assistance of graduate students.

Summary Table of relevant funded and pending projects in the past 10 years:

Project Title		**Sponsor**	**Project Amount**
DISES-EX: Resilience of community-based tropical forest management systems	PI	National Science Foundation (pending)	$904,263
MRA: Linking traits to grassland ecosystems fluxes and climate resiliency at continental scale	Co-PI	National Science Foundation (pending)	$1,898,916
Mixed fuel models derived from NAIP imagery to improve risk assessment of urban and WUI wildfires	Co-PI	Joint Fire Science Program (pending)	$483,263
Changes to Rio Grande Wild Turkey Habitat and Subsequent Population Demography, Genetic Connectivity, and Disease Prevalence	Co-PI	National Wild Turkey Federation	$105,341.00
Landscape Assessment of West and South Texas Grasslands	PI	Texas Comptroller Public Accounts	$869,745.00
Historical trends of the landscape structure of plant communities of Sand Shinnery Oak	PI	Pheasants Forever	$154,424.00
Mapping for Resilience University Consortium	Co-PI	United States Agen for Intl Devpt	$999,000.00
Tropi-Dry Collaborative Research Network subcontract	PI	University of Alberta/Inter-American Institute of Global change Research	$79,275.00
RFP No. 209f for Endangered Species Research Projects for Texas Kangaroo Rat	Co-PI	Texas Comptroller Public Accounts	$79,482.00
Prototyping a monitoring system for trends in tropical forest loss./ Travel Award.	PI	Office of International Affairs TTU	$2,000